The Seamounts of the Sargasso Sea

Working Paper

Submitted to the IJMCL, Current Legal Developments – Sargasso Sea (brill.com/estu)

The Seamounts of the Sargasso Sea: Adequately Protected?

Daniela Diz, PhD

Research Fellow University of Edinburgh, School of Law, Daniela.Diz @ed.ac.uk

In January 2016, the Northwest Atlantic Fisheries Organization (NAFO)[1] conferred a higher level of protection from bottom fishing activities on two of the Sargasso Sea seamount chains – the New England Seamounts and the Corner Rise seamounts – when the NAFO Fisheries Commission decisions of September 2015 entered into force.[2] This is an important development in international environmental law and the law of the sea, as it brings together two biodiversity concepts, namely the Food and Agriculture Organization (FAO) vulnerable marine ecosystems (VMEs) and the Convention on Biological Diversity (CBD) ecologically or biologically significant marine areas (EBSAs). It also clearly demonstrates the value of these scientific criteria for management decisions. Furthermore, it represents a major success for the Sargasso Sea Commission that was established by the Government of Bermuda in 2014 pursuant to the Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea.[3] This contribution examines the background and context, as well as the outcomes of this significant development in deep-sea conservation, highlighting elements that deserves further consideration.

Two important new Concepts: VMEs and EBSAs

VMEs are the outcome of several years of extensive debate within the UN General Assembly (UNGA) on the need to protect deep-sea habitats and species from the impacts of bottom fishing activities. In 2006 the UNGA adopted a landmark Resolution 61/105 (2006), calling onto the regional fisheries management organisations (RFMOs) and flag states to assess whether individual bottom fishing activities could cause significant adverse impacts (SAIs) to vulnerable marine ecosystems (VMEs) such as cold water corals,

---

[1] NAFO was founded in 1979 as a successor to ICNAF (International Commission of the Northwest Atlantic Fisheries) (1949-1978). The 1979 Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries applies to most fishery resources of the Northwest Atlantic except salmon, tunas/marlins, whales, and sedentary species (e.g., shellfish). For text see http://www.nafo.int/about/overview/governance/convention/convention.pdf

[2] Northwest Atlantic Fisheries Organization, Conservation and Enforcement Measures 2016 (NAFO/FC Doc. 16/01), Articles 13 (8) and 17 (1).

[3] See David Freestone and Kate K Morrison, "The Signing of the Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea: A new paradigm for high seas conservation?" (2014) 28 *International Journal of Marine and Coastal Law* 345–362. The Declaration, signed by the governments of the Azores, Bermuda, British Virgin Islands, Monaco, UK and US, is an Appendix to that paper at 358–362.

sponges, hydrothermal vents and seamounts.[4] It required that once such vulnerability was determined, management measures should be put in place to prevent those impacts, or the activity should not be authorised to proceed.[5] Resolution 61/105 also requested RFMOs to identify VME areas and to close to fishing those areas where VMEs are likely to occur unless measures to prevent impacts are in place.[6] To guide the implementation of these provisions, the FAO developed and adopted the International Guidelines for the Management of Deep-sea Fisheries in the High Seas (FAO Guidelines),[7] which set generally agreed standards for deep-sea fishing on the high seas, including by defining criteria for identification of VMEs[8] and determining minimum environmental impact assessment (EIA) standards.[9]

The implementation of UNGA Resolution 61/105 was reviewed in 2009 and 2011, with the next review scheduled for August 2016. The 2011 review concluded that despite progress, "the urgent actions called for in the relevant paragraphs of Resolutions 61/105 and 64/72 have not been fully implemented in all cases, and in this regard further actions in accordance with the precautionary approach, ecosystem approaches and international law and consistent with the Guidelines are needed (…)".[10] Additional provisions to strengthen its implementation were introduced, with a strong emphasis placed on impact assessments, cumulative impact assessments, and transparency,[11] since it became clear that if EIAs were being conducted, most of them were not being made publicly available as required under the UN Convention on the Law of the Sea (LOSC)[12] and the respective UNGA Resolutions.[13]

EBSAs are the outcome of a decision of the Parties to the Convention on Biological Diversity (CBD) in Nagoya, Japan, in 2010, to initiate a science-driven process to describe ecologically or biologically significant marine areas (EBSAs).[14] To that end a series of workshops have been organised by the CBD Secretariat in association with other organisations to identify and describe such areas.[15] At a workshop in Brazil in March 2012, the Government of Bermuda put forward a proposal for the "Description" of the Sargasso Sea as an EBSA, which was approved by the 16th Meeting of the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) in April/May 2012 and was noted by the CBD COP 11 in Hyderabad in October 2012.[16] The Report of the Brazil Workshop[17] expressly refers to the Corner Rise Seamount chain as home to specialized, fragile, diverse and endemic communities, and makes a number of references to the Corner Rise Seamounts as well as the New England Seamounts,

---

[4] UNGA Resolution 61/105, paragraph 83 (a).
[5] Ibid.
[6] UN General Assembly Resolution 61/105, paragraph 83 (c).
[7] FAO, *International Guidelines for the Management of Deep-sea Fisheries in the High Seas* (Rome: FAO, 2009) [FAO Guidelines].
[8] Ibid, paragraph 42.
[9] Ibid, paragraph 47.
[10] UN General Assembly Resolution 66/68, paragraph 129.
[11] UNGA resolution 66/68 (2011), paragraph 129 (a).
[12] Article 206. LOSC
[13] UNGA Resolution 61/105 (2006), paragraph 84; UNGA Resolution 64/72 (2009), paragraph 122 (b).
[14] "[The] primary objective of this process is to facilitate the description of ecologically or biologically significant marine areas through application of scientific criteria in annex I of decision IX/20 as well as other relevant compatible and complementary nationally and inter governmentally agreed scientific criteria, as well as the scientific guidance on the identification of marine areas beyond national jurisdiction, which meet the scientific criteria in annex I to CBD Decision IX/20." CBD Decision X/29, Paragraph 36.
[15] For further details see http://www.cbd.int/meetings/.
[16] https://www.cbd.int/doc/?meeting=RWEBSA-WCAR-01
[17] UNEP/CBD/SBSTTA/16/INF/7.

including reference to the NAFO closures. At a later regional workshop in North-west Atlantic Area in Montreal in March 2014, those two seamount areas were also additionally described as EBSAs,[18] followed by consideration by SBSTTA-18 in June in Montreal and COP 12 in Pyeongchang in October 2014. Unusually, therefore, these two seamount chains have been described by two separate EBSA workshops and considered by two COP decisions, welcoming the scientific information contained in the workshop reports.[19]

The "Description" as an EBSA has no legal significance, but it is intended that the CBD process will be taken into account by other international processes charged with managing and conserving ocean biodiversity and resources in areas beyond national jurisdiction.[20] For example, while the CBD parties decided[21] that the Convention does not have competence to designate marine protected areas (MPAs) or conduct EIAs, information shared through the EBSA description process may help strengthen the scientific basis for protective measures at other sectoral entities, such as RFMOs.[22]

Seamounts Protection?

NAFO has been adopting a series of incremental measures to protect VMEs,[23] including by closing to fishing a number of sponge and deep cold water coral areas, in its North West Atlantic regulatory area. [24] With respect to seamounts, as of January 2007 NAFO agreed to close four seamount chains to bottom fishing activities, namely the Orphan Knoll, the Corner Rise Seamounts, the Newfoundland Seamounts and the New England Seamounts (portion of the chain situated beyond the United States exclusive economic zone[25]).[26] The Fogo Seamount chains were closed in the following year.[27] However, the seamounts' closures had an unusual characteristic – up to 20 percent of the fishable areas in each seamount was subject to exploratory fishing,[28] provided that exploratory fishery protocols were submitted to the NAFO Scientific Council for review.

---

[18] https://www.cbd.int/doc/?meeting=EBSAWS-2014-02

[19] Decision XI/17, paragraph 3, and Decision XII/22, paragraph 1.

[20] And in case of EBSAs described in areas within national jurisdiction, the respective coastal state will decide on how to use this information in the adoption of conservation and management measures. See CBD Decision IX/29, paragraph 26.

[21] This political decision has been reflected in a number of CBD Decisions, including CBD Decision IX/29, paragraph 26, despite clear guidance on the Convention's applicability to processes and activities carried out in areas beyond national jurisdiction under the jurisdiction or control of its parties (CBD, Article 4 (b)).

[22] In effect, CBD Parties and intergovernmental organisations, within their respective jurisdiction and competence, have been encouraged to take measures to ensure conservation and sustainable use by implementing relevant tools, including area-based management tools such MPAs, EIAs and strategic environmental assessments to avoid degradation or destruction of EBSAs (CBD Decision X/29, Annex, paragraph (d)).

[23] This is done through the adoption by the NAFO Fisheries Commission of fisheries regulations which are revised each year. See NAFO Conservation and Enforcement Measures, online: <http://www.nafo.int/fisheries/frames/fishery.html>

[24] These closures are temporary with a time-span of approximately four to five years and subject to review and extension. All current closures will expire on 31 December 2020, when a new review will be conducted.

[25] As NAFO's regulatory area does not include coastal states EEZs.

[26] NAFO, *Report of the 6th Meeting of the NAFO Scientific Council Working Group on Ecosystem Science and Assessment (WGESA)*, NAFO SCS Doc. 13/024 (Dartmouth, NAFO, 2013).

[27] Ibid.

[28] NAFO Conservation and Enforcement Measures (2010), NAFO/FC Doc. 10/1.

This arbitrary 20% rule proved difficult to implement, with the Scientific Council (SC) noting that there was insufficient data on seamount fishable areas.[29] As of January 2012, this 20% rule was revoked, and bottom fishing activities were then prohibited on these seamount areas.[30] However, the exploratory fishing provisions (noted above) were not specifically deleted from the NAFO regulations. This meant that it was still legal to conduct such fisheries in the "closed" seamounts as long as exploratory fishery protocols and impact assessments had been submitted to, and approved by, the Scientific Council and the Fisheries Commission.[31]

Assessing the Sargasso Sea Seamounts: An intricate path

During NAFO's Annual Meeting in 2012, the Fisheries Commission[32] requested the Scientific Council to "(…) comment and advise on whether the Sargasso Sea provides forage area or habitat for living marine resources that could be impacted by different types of fishing; and on whether there is a need for any management measure including a closure to protect this ecosystem".[33] The polygon with the Sargasso Sea coordinates was kindly provided by the Sargasso Sea Alliance, the predecessor to the Sargasso Sea Commission at the time.[34] These co-ordinates were the same as for the area described as meeting the CBD EBSA requirements.[35]

The Sargasso Sea EBSA is a unique ecosystem comprised of dynamic ecological features and a biologically rich benthic community, which includes the Corner Rise Seamounts and the New England Seamounts (beyond the US EEZ).[36] Therefore, when in 2013 the NAFO Scientific Council addressed the request of the Fisheries Commission on the Sargasso Sea, it had to assess two Exploratory Fishing Protocols submitted to the NAFO Secretariat in 2012 by Spain with respect to fishing for splendid alfonsino in the Corner Rise Seamounts.[37]

The Scientific Council noted that within the Sargasso Sea polygon provided by the request, "the forage areas or habitat for living marine resources that could be impacted by different types of fishing relevant to NAFO management are limited to those associated with the New England and Corner Rise Seamounts."[38] The Scientific Council then recommended the extension of the closures of both the Corner Rise and New England Seamount chains to include all peaks shallower than 2000 metres and that the exploratory

[29] NAFO WGESA (2013), supra note 26.
[30] NAFO Conservation and Enforcement Measures (2012), NAFO/FC Doc. 12/1, Article 16 (1) and (2).
[31] NAFO CEM (2012), Article 16 (2), Annex I.E, section V.
[32] The request was based on a proposal sponsored by the US and the EU.
[33] NAFO, Report of the Fisheries Commission, 34th Annual Meeting (St. Petersburg, 17-21 September 2012), NAFO/FC Doc. 12/31, at 38.
[34] David Freestone and Kate Morrison, "The Sargasso Sea Alliance: Seeking to Protect the Sargasso Sea." (2012) 27 *International Journal of Marine and Coastal Law* 647-655.
[35] UNEP/CBD/SBSTTA/16/INF/7, *Report of the Wider Caribbean and Western Mid-Atlantic Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas* (CBD, 2012) 107-129.
[36] The US EEZ was not included in the geographical scope of the CBD regional workshop to describe areas meeting the EBSA criteria in the Wider Caribbean and Western Mid-Atlantic, and therefore the contiguous ecological features such as the New England Seamounts chains within these areas were not included in the description of the area.
[37] NAFO WGESA (2013), Supra Note 26.
[38] NAFO, Part E: Scientific Council Meeting – 23-27 September 2013, at 311.

protocol be expanded to include all types of fisheries, specifically mid-water trawl.[39] Furthermore, since splendid alfonsino is not a species regulated by NAFO, the Council recommended that precautionary regulations should be put in place. The NAFO Fisheries Commission deferred consideration on this issue to its Working Group on Ecosystem Approach Framework to Fisheries Management (WGEAFFM) in the following year. [40]

Prior to the WGEAFFM meeting in 2014, the Scientific Council Working Group on Ecosystem Science and Assessment (WGESA) had been tasked with the revision of all NAFO VME closed areas which were due to expire on 31 December 2014. When considering the New England and Corner Rise Seamounts, the group considered existing scientific information, peer-review literature,[41] as well as the information contained in the EBSA workshop report and restated their previous conclusion from 2010 that these areas are VMEs.[42]

With respect to the exploratory fisheries occurring on the Corner Rise Seamounts the Working Group noted:

> "Fisheries (using bottom trawl and mid-water trawl) for splendid alfonsino has taken place on a regular basis from 1976 to 1996 (Vinnichenko, 1997) on the Corner Rise Seamounts followed by a 9-year hiatus and again starting in 2004 (SC Report Sept 2013). The SC has noted that in most recent years, a directed commercial fishery using mid- water trawl had been conducted since 2005. Catches for this fishery ranged from about 50 to 1200 t and effort ranged from 4 days to 50 days. Although today this fishery is generally small (catches of 302 t in 2012), the SC has concluded that this mid-water trawl commercial fishery is not covered under Chapter II of the [NAFO Conservation and Enforcement Measures (NCEM)] (i.e. Bottom Fisheries in the NAFO Regulatory Area) or any other chapter, and that this gap in the NCEMs could result in an ongoing fishery that is unregulated. Bycatch of other vulnerable species, such as small-tooth sand tiger shark (listed as vulnerable under the IUCN Red List for Threatened Species) has been identified in the current fishery (SC WP 20/13)."[43]

When reviewing the seamounts closures, the Scientific Council at its 2014 meeting, agreed with the conclusions of the WGESA and reiterated its advice that the seamounts should be considered VMEs.[44] They also highlighted the fact that they are susceptible to impacts from bottom trawling and mid-water trawl. However, at a subsequent meeting of the WGEAFFM, one contracting party could not agree that mid-water trawl should be subject to the same rules applied to bottom fishing given the definition contained in the NAFO Conservation and Enforcement Measures. [45] The disagreement was not resolved at the subsequent 2014 NAFO Annual Meeting, where Norway proposed closing the seamounts to

---

[39] Ibid.
[40] This is a joint working group of the Fisheries Commission and the Scientific Council.
[41] E.g. R Waller, L Watling, P Auster, TM Shank, "Fisheries impacts on the Corner Rise Seamounts" (2007) 87 J Mar Biol Assoc UK 1075-1076; L Watling, "A revision of the genus Iridogorgia (Octocorallia: Chrysogorgiidae) and its relatives, chiefly from the North Atlantic Ocean" (2007) 87 J Mar Biol Assoc UK 393-402; L Watling, R Waller, P Auster, "Corner Rise Seamounts: the impact of deep-sea fisheries" (2007) 44 ICES
Insight 10-14; E Pante, L Watling "Chrysogorgia from the New England and Corner Seamounts: Atlantic – Pacific connections" (2012) 95(5) J Mar Biol Assoc UK 911-927.
[42] NAFO, WGESA (2013) supra note 26.
[43] Ibid, at 39.
[44] NAFO, SC, Part E: Scientific Council Meeting, 31 May - 12 June 2014**.**
[45] The definition of NAFO's Conservation and Enforcement Measures (NCEM), in line with the FAO Guidelines, reads: ""Bottom fishing activities" means bottom fishing activities where the fishing gear is likely to contact the seafloor during the normal course of fishing operations" (NCEM, Art. 1(1), NAFO/FC Doc. 14/1 (2014)).

exploratory fishing "in order to remove the inconsistency resulting in the situation where we present 'closures' of areas which are in fact not closed."[46] Norway noted that reporting to the UNGA review on the implementation of Resolution 61/105 and subsequent resolutions on VMEs that these seamount areas were closed when in fact no extra protection is afforded to them in relation to its surroundings, would be serious and misleading.[47]

Nevertheless agreement could still not be reached, and the Fisheries Commission then requested the Scientific Council at its next meeting in the following year to review information and analyses on the impact of mid-water trawls on VME indicator species in those instances when the gear makes contact with or is lost on the bottom.[48]

The Scientific Council WGESA addressed this question and reiterated its conclusions from a 2010 analyses that this gear "can negatively impact seamounts and associated VME indicator species."[49] The scientists explained that typically, depending on the target species, interactions with the seafloor do not occur, but in the case of alfonsino (*Beryx spp*), mid-water trawl is deployed close to the seafloor following the school of fish that moves vertically in the water column. The chances of bottom contact are higher when fishing on seamounts, given the difficulties in controlling the large gear amidst the currents and gyres and the seamounts' irregular topography. A similar assessment had been conducted under the scope of the South Pacific RFMO which concluded that mid-water trawl for alfonsino on seamounts should be re-classified as bottom fishing given the likelihood of bottom contact.[50] The Working Group also noted that gear advancements have enabled nets to be stronger and, in the South Pacific study, gear has not been lost when contacting the seafloor and the net was torn in only a few cases.[51]

After further consideration at its May 2015 session, the Scientific Council, endorsed its Working Group scientific expert opinion, which was submitted to the NAFO Fisheries Commission and Scientific Council Joint Working Group on Ecosystem Approach to Fisheries Framework Management. At its meeting in July 2015, the WGEAFFM could not agree on reclassifying mid-water trawl as bottom fishing, but agreed to recommend to the Fisheries Commission that the possibility of conducting exploratory bottom fishing on seamounts be stopped, and that the requirements of existing mid-water trawl gear design regulations applicable to redfish fisheries be extended to seamount areas.[52] These would restrict the use of mid-water trawl gear by prohibiting the inclusion of discs, bobbins or rollers on its footrope in order to avoid or minimize bottom contact. These attachments are usually designed and utilised to protect the expensive

---

[46] NAFO, Report of the Fisheries Commission and its Subsidiary Body (STACTIC), 36th Annual Meeting of NAFO 22-26 September 2014, Vigo, Spain, NAFO/FC Doc. 14/35. (Dartmouth, NAFO, 2014), at 73

[47] Ibid.

[48] NAFO, Report of the Fisheries Commission and its Subsidiary Body (STACTIC), 36th Annual Meeting of NAFO 22-26 September 2014, Vigo, NAFO/FC Doc. 14/35. (Dartmouth, NAFO, 2014), at 73.

[49] NAFO, SC -WGESA, Report of the 7th Meeting of the NAFO Scientific Council Working Group on Ecosystem Science and Assessment, NAFO SCS Doc. 14/023 (Dartmouth, NAFO, 2014).

[50] NAFO WGESA (2014) NAFO SCS Doc. 14/023. See also SPRFMO, Report of the 2nd Scientific Committee Meeting, Honolulu, Hawaii, USA; 1-7 October 2014 (SPRFMO, 2014); G. Tingley, "An assessment of the potential for near-seabed mid-water trawling to contact the seabed and to impact benthic habitat and Vulnerable Marine Ecosystems (VMEs)," SPRFMO, Second Meeting of the Scientific Committee, SC-02-10 (SPRFMO, 2014).

[51] ibid.

[52] NAFO, Report of the NAFO Joint Fisheries Commission-Scientific Council Working Group on Ecosystem Approach Framework to Fisheries (WG-EAFFM), 15-17 July 2015, Halifax, NAFO FC/SC Doc. 15/03 (Dartmouth, NAFO, 2015).

fishing gear itself from impacts with the seafloor. These gear modifications, therefore, are intended to create disincentives to fishing activities close to the bottom, since damage to the gear can occur more easily. It was also suggested that all VME species caught as bycatch by mid-water trawl be recorded regardless of the amount caught.

In its subsequent Annual Meeting, the Fisheries Commission adopted these recommendations.[53] Since no objections were received by contracting parties, these entered into force on 1 January 2016.[54] On the gear modification, the regulation stipulates that

> "When fishing in the seamount closures defined in Article 17(1), only gear that is designed to fish for pelagic species, no portion of which is designed to be or is operated in contact with the bottom at any time, is allowed. The gear shall not include discs, bobbins or rollers on its footrope or any other attachments designed to make contact with the bottom. The trawl may have chafing gear attached".[55]

Concluding remarks and possible road ahead

After lengthy considerations by NAFO, the Sargasso Sea seamounts – Corner Rise and New England Seamount chains – achieved a new and important degree of protection. The new regulations have finally closed the seamounts to bottom trawling and imposed restrictions on mid-water trawl to avoid bottom contact and significant adverse impact on the VMEs. This can be considered a success story, and yet, perhaps only an important first step of a longer road given the questions and considerations that could still benefit from further attention.

First, the current seamount closure does not cover all the shallower but still fishable seamount peaks that are less than 200 m. deep. The polygon used for the description of the New England and Corner Seamount chain EBSAs in the 2014 NW Atlantic EBSA workshop could be used for this purpose, as it reflects the further scientific and spatial analysis that was conducted there.[56]

Second, the fishery for alfonsino continues to be unregulated, since a quota for this fishery was not agreed upon and there was insufficient scientific information to enable a proper stock assessment to be undertaken. The mid-water trawl gear requirements for seamounts does not really provide any sort of legitimacy for the alfonsino fishery to continue, given the lack of scientific information available on the status of the stock and the absence of a precautionary catch quota as required by the UN Fish Stocks Agreement (UNFSA).[57]

In fulfilling their obligations to cooperate through RFMOs, states must adopt and apply generally

---

[53] NAFO, Report of the Fisheries Commission and its Subsidiary Body (STACTIC), 37th Annual Meeting of NAFO, 21-25 September 2015, Halifax, NAFO/FC Doc. 15/23 (Dartmouth, NAFO, 2015).
[54] NAFO Conservation and Enforcement Measures (2016), supra note 2.
[55] Ibid, Art. 13 (8).
[56] CBD, Report of the North-West Atlantic Regional Workshop to Facilitate the Description of Ecologically or Biologically Significant Marine Areas, Montreal 24-28 March 2014, UNEP/CBD/EBSA/WS/2014/2/4; see also UNEP/CBD/COP/DEC/XII/22 (2014), paragraph 1.
[57] All NAFO's contracting parties, with the exception of Cuba, are parties to the Fish Stocks Agreement.

recommended international minimum standards for the conduct of responsible fishing operations. [58] These generally agreed standards in this case are specifically contained in the FAO Deep-Sea Fisheries Guidelines and the UNGA resolutions provisions on VMEs under which, not only vulnerable habitats are to be protected, but also the long-term sustainability of vulnerable deep-sea stocks should be guaranteed through the application of the precautionary approach[59] and precautionary reference points.[60] Furthermore, Article 10 (d) and (g) of the UNFSA also applies, under which states, through RFMOs must evaluate scientific advice, review the status of the stocks, conduct stock assessments and assess the impact of fishing on non-target and associated or dependent species. It has been demonstrated that bycatch of other vulnerable species – such as deep-water sharks - have occurred in this fishery. Without a proper assessment, the RFMO should not set total allowable catches, or allow the unregulated fishery to continue.

Third, in addition, given the conclusions of the Scientific Council that mid-water trawl should be considered bottom fishing, it is reasonable to assume that the application of the EIA criteria and standards of the FAO Guidelines in its paragraph 47 should have been required and that fishery only be allowed to take place after a full assessment of impacts and a stock assessments of targeted and associated species.

Nevertheless, despite the shortcomings and pending issues, progress has been made. Closing bottom trawling fisheries in those seamounts can be considered a positive outcome; because there was evidence that bottom trawling was occurring.[61] Furthermore, the mid-water trawl gear modification adopted, if properly monitored and enforced, can minimize risks to VMEs. In this connection, attaching cameras to this gear might be a useful next step if fishing continues.

The requirement to report all caught VME species is also a good step forward. This type of reporting, especially on a tow by tow basis should be promoted widely, however, it is important to note that even if the "catch" of VME species such as cold water corals and sponges in mid-water trawl might be low or inexistent, it does not mean that damage is not occurring.

Finally, it is important not to lose the perspective that despite the slow progress, and persisting flaws, improvements in regulation were made possible due not only to the VME requirements alone, but also because of the contribution and motivation generated by the scientific information contained in the Sargasso Sea EBSA description. The combination of these two scientific tools,[62] culminated in meaningful progress that should be replicated in a wider (and speedier) scale in giving effect to the duty to protect, conserve and sustainably use marine biodiversity.[63]

---

[58] Also in line with Article 119 (1) (a), LOSC.
[59] FAO Deep Sea Guidelines (2009), paragraph 76.
[60] UNFSA, Article 6 and Annex II.
[61] And had occurred in the past damaging some of the rich and diverse benthic seamounts. See R Waller et al (2007), supra note 41; WGESA (2013); V Vinnichenko, "Russian Investigations and Deep Water Fishery on the Corner Rising Seamount in Subarea 6" (1997) 30 NAFO Sci. Coun. Studies 41-49; A Thompson, G Campanis, "Information on Fishing on and around the four closed seamount areas in NRA" (2007), NAFO SCR Doc. 07/06,
[62] And a lot of effort by the Sargasso Sea Alliance, WWF-Canada, the Ecology Action Centre, and the Deep Sea Conservation Coalition, the comprehensive and high quality work of Canadian, American, Norwegian, UK and Spanish scientists, and the good faith and intentions of parties such as the US, Norway and Canada, among others.
[63] UNFSA, Article 5 (g), CBD, Articles 2, 8, 22; and indirectly, UNCLOS, Article 194 (5).

Dr Daniela Diz
Law School
University of Edinburgh